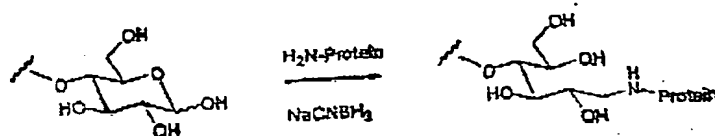
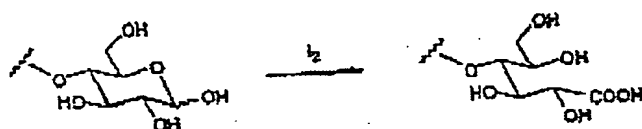
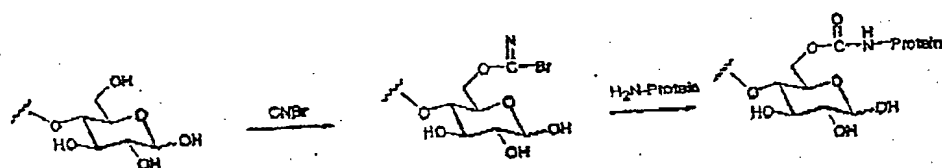


Fig. 1: Neoglycoprotein synthesis

a) Reductive amination

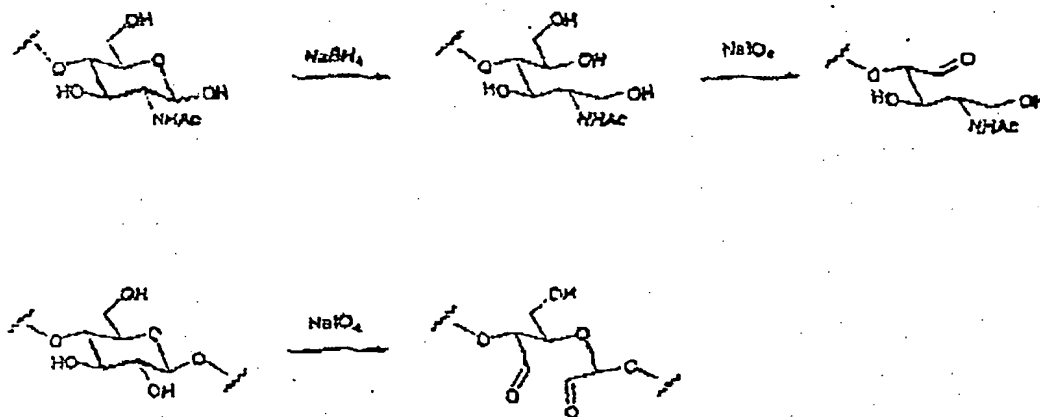
5 b) I₂ oxidation

c) CNBr activation



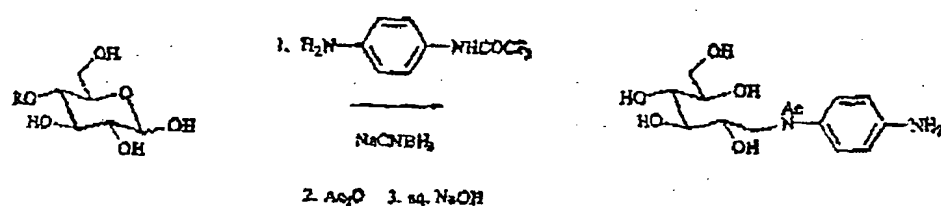
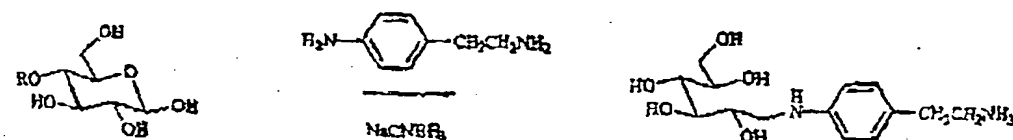
Alternative: activation with CDAP

10

d) NaIO₄ cleavage

15 Fig. 2.1: Polysaccharide modification

a) Reductive amination



5 b) N-glycosylation

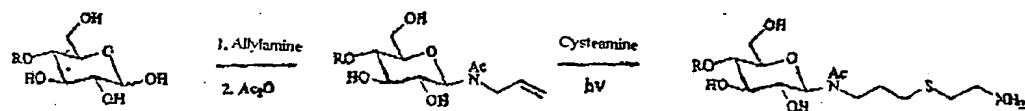
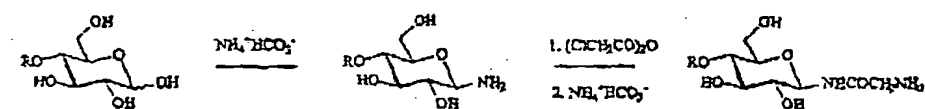
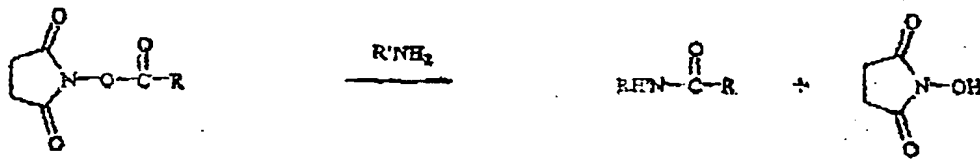
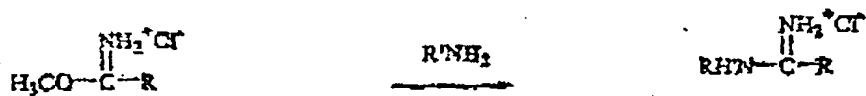


Fig. 2.2: Oligosaccharide modification

1a: N-Hydroxysuccinimides



5 1b: Imido esters



1c: Aryl azides



10

2: Hydrazides

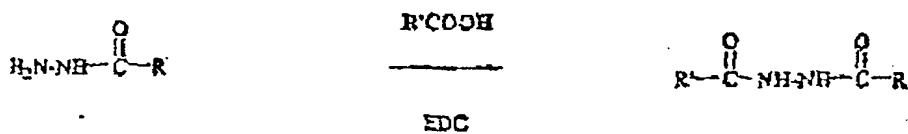
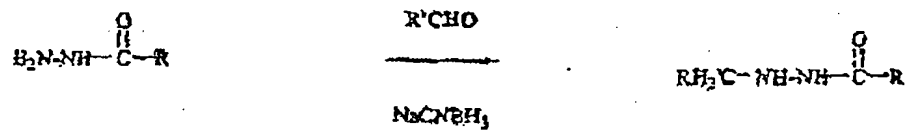
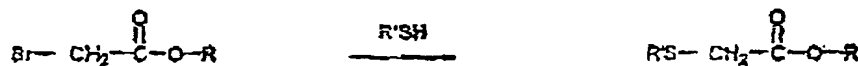


Fig. 3: NH₂ and CHO/COOH coupling reactions

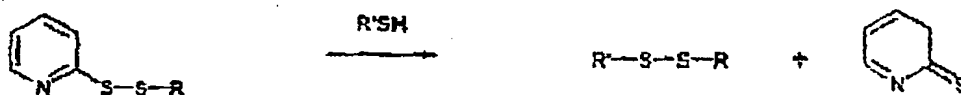
3a: Haloacetates



5 3b: Maleimides



3c: Pyridyl disulfides

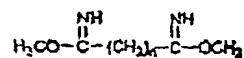


10

Fig. 3: SH coupling reactions

1: Homobifunctional

a)

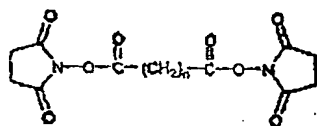


DMA (n = 4)

DMP (n = 5)

DMS (n = 6)

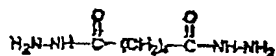
b)



DSG (n = 3)

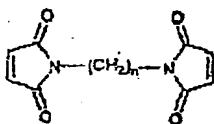
DSS (n = 6)

c)



ADH

d)



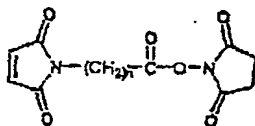
BMCE (n = 2)

BMB (n = 4)

BMH (n = 6)

2: Heterobifunctional

a)

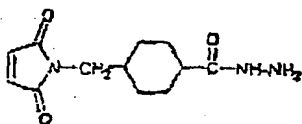


AMAS (n = 1)

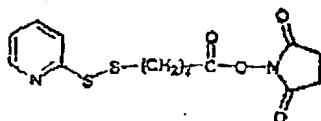
GMBS (n = 3)

EMCS (n = 5)

b)

 $\text{M}_2\text{C}_2\text{H}$

c)

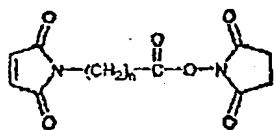


SPDP

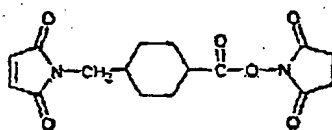
Fig. 4: Crosslinkers

1: Maleimide

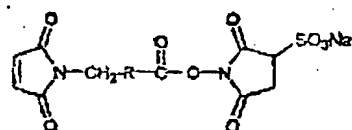
a)



AMAS ($n = 1$)
GMBS ($n = 3$)
EMCS ($n = 5$)

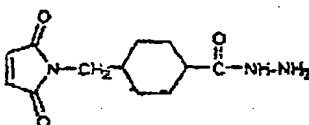


SMCC

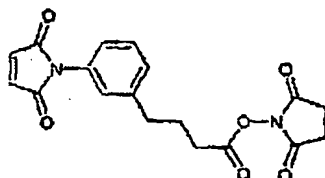


Sulfo-GMBS
Sulfo-EMCS
Sulfo-SMCC

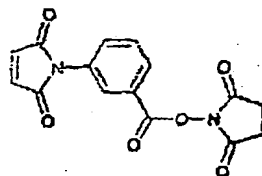
b)

 M_2C_2H

c)



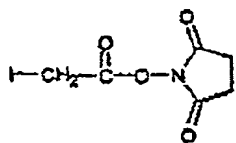
SMPB



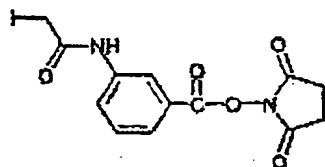
MBS

5 Fig. 5: Linkers for SH couplings

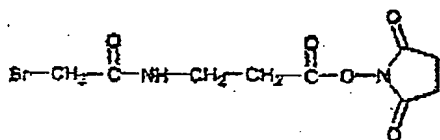
2: Haloacetate



SIA

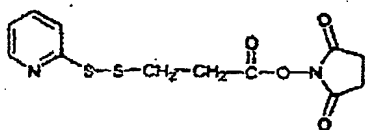


SIAB

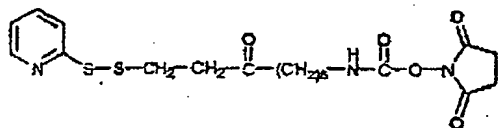


SBAP

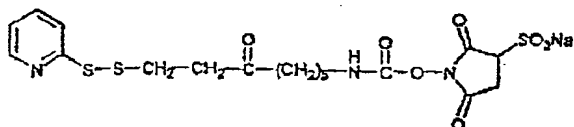
5 3: Pyridyl disulfide



SPDP



LC-SPDP



Sulfo-LC-SPDP

Fig. 5: Linkers for SH couplings